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EXAMINER

ROSARIO, DENNIS

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/078,713	Applicant(s) NAMIZUKA, YOSHIYUKI	
	Examiner Dennis Rosario	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7-10,12,13,15,16,18,19,21-24,26,27,29-37,39,40 and 42-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,7-10,12,13,15,16,18,19,21-24,26,27,29-37,39,40 and 42-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/12/08 has been entered. Claims 1-5,7-10,12,13,15,16,18,19,21-24,26,27,29-37,39,40,42-47 are pending.

Claim Objections

2. Claims 12, 26 and 43 are objected to because of the following informalities: Claims 12,26,43 have lost their parent claims since the respective parent claims were canceled. Appropriate correction is required.

Response to Arguments

3. Applicant's arguments filed 11/12/08 have been fully considered but they are not persuasive.

Applicants state that Ueta does not disclose a processing mode that is inputted by a user. The examiner respectfully disagrees since Ueta teaches a user that inputs a "mode...using...buttons" in col. 10, lines 34-38.

Applicants state that Ueta does not suggest a set of predetermined correction coefficients. The examiner respectfully disagrees since as applicants have already pointed out that a user inputs a "single value" on page 9 of the

remarks which corresponds to one of the claimed set of predetermined correction coefficients and another correction coefficient has already been "set" on page 9 of the remarks as the other of the claimed set of predetermined correction coefficients.

Applicants state that the examiner did not respond to an argument of 5/8/08 about Goto. The examiner respectfully disagrees, since the examiner has responded to the unaddressed argument in the advisory action of 10/2/08. In addition, the applicant appears to make an argument that both references have manually determined features while the instant application has automated features. Thus, the combination is reasonable given that both Ueta and Goto are manual. However, such automated features as applicant has stated are not claimed. See paragraph 4, below.

4. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "threshold values are automatically generated based upon the input image rather than manually inputted by the user through human intervention") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 29-40, 44 and 47 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 29 is drawn to functional descriptive material NOT claimed as residing on a computer readable medium. MPEP 2106.IV.B.1(a) (Functional Descriptive Material) states:

“Data structures not claimed as embodied in a computer-readable medium are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer.”

“Such claimed data structures do not define any structural or functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure’s functionality to be realized.”

Claim 29, while defining a storage medium, does not define a “computer-readable medium” and is thus non-statutory for that reasons. A storage medium can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to embody the program on “computer-readable medium” in order to make the claim statutory.

“In contrast, a claimed computer-readable medium encoded with the data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure’s functionality to be realized, and is thus statutory.” - MPEP 2106.IV.B.1(a)

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-5, 7-10,12,15,16,18,19,21-24,26,29-37,39 and 42-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueta et al. (US Patent 5,748,800) in view of Goto (US Patent 5,748,801).

Regarding claim 15, Ueta et al. teaches a system of processing image data, comprising:

a) an operation unit (fig. 1,numerals 48 and 49) for inputting a user input value ("user inputs" in col. 3, line 65 of "edge contrast level" in col. 10, lines 27-34) as done by a user ("user" in col. 10, lines 27-34) including inputting (via "buttons" in col. 10, lines 27-33) a processing mode ("fast scanning mode" in col. 10, lines 34-38) as done by a user ("user" in col. 10, lines 34-38);

b) an image data input unit (fig. 1, num. 43) for inputting image data (fig. 1, num. 43: CCD LINE SENSOR);

c) a threshold unit (fig. 1,num. 48 includes coefficients that are compared as indicated in fig. 3,num. 77) connected (via fig. 1, numerals 59,44,45 and 47) to said image data input unit (fig. 1,num. 43) for generating a set of threshold values (or two threshold values: "T0 as a small value" in col. 8, line 19 and "T0 to be a large value" in col. 8, line 23) based upon an intensity level ("small [contrast] edge areas" in col. 8, line 21 and "large contrast edge areas" in col. 8, line 24) of the inputted image data (Ueta does not disclose limitation c) as a whole as discussed below)

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(note that the “contrast” of “small [contrast] edge areas” in col. 8, line 21 was assumed to be omitted; since the corresponding counter part “large contrast edge areas” has “contrast.” Also, by inserting contrast into “small edge areas” makes sense to one of ordinary skill in edge detection.);

d) a space filter process unit (fig. 1,num. 47) connected (via numerals 59,44,45) to said image data input unit (fig. 1, num. 43) and said threshold unit (fig. 1,num. 48) for determining (via a detailed view of fig. 1,num. 47 as shown in fig. 3 wherein numeral 77: COMPAR. is a comparator that determines) whether or not a portion (Fig. 2.num. 61) of the image data (fig. 2, num. 43) is an outline portion (edge portion) to generate an outline characteristic (Output of fig. 3, num. 77:COMPAR. generates edge data) of the outline portion in the image data; and

e) an intensity correction unit (fig. 1,num. 45:CCD SIGNAL PROCESSOR performs a shading correction in col. 3, lines 35 and 36.) connected (via num. 47) to said operation unit (fig. 1,numerals 48 and 49) and said space filter process unit (fig. 1,num. 47 a detailed view of which is shown in fig. 3) for:

e1) selecting a correction coefficient (fig. 3, num. 79 is a switch that selects a coefficient from fig. 3,num. 81: CONT. COEF. INPUT UNIT) from a set of predetermined correction coefficients (fig. 3, num. 49: CONT. COEF. INPUT UNIT contains “a preset...coefficient” in col. 4, lines 2-4 and another coefficient $K=0$ from fig. 3:80) based upon

e11) the threshold values (said T_0 when large or small),

e12) a combination (represented as K_1 in fig. 3 which represents a combination of data from numerals 77,80 and 81) of the outline characteristic (Output of fig. 3, num. 77:COMPAR. that generates edge data that is used by fig.3 3,num. 79.) and the user input value (as shown in figures 1 and 3,numerals 48 and 49); and

f) applying the selected correction coefficient (fig. 3,num. 79 is a switch that selects a coefficient from fig. 3,num. 49: CONT. COEF. INPUT UNIT which is applied via num. 82.) to the portion (Fig. 2.num. 61 is a portion of an image.) of the image data (fig. 2, num. 43).

Ueta does not disclose limitation c) as a whole which requires generating a set of threshold values based upon an intensity level of the inputted image data and instead Ueta generates threshold values in anticipation of an image that is not yet inputted. Thus, Ueta blindly or arbitrarily determines threshold values regardless of the current image that is going to be inputted in anticipation that the current image will have at least small or large contrast areas which are thresholded by predetermined threshold values in order to adjust the contrast edges on an image.

Goto teaches generating thresholds in real time while displaying a corresponding image as discussed in col. 3, lines 25-32.

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Ueta selection of a threshold in anticipation of an arbitrary image with Goto's selection of a threshold in real time with a corresponding image, because Goto's teaching of selecting thresholds that results in "proper threshold values is simpler

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and takes less time" in col. 3, lines 31,32 as opposed to setting threshold values "not performed in real time" in col. 1, line 31 such as the method of Ueta.

Claim 1 is rejected the same as claim 15. Thus, argument similar to that presented above for claim 15 is equally applicable to claim 1, except that claim 1 is directed towards a method.

Regarding claim 2, Ueta teaches the method of processing image data according to claim 1 wherein the image data is scanned (fig. 1, num. 43: CCD LINE SENSOR captures an image based upon "user indicat[ion]" or customization in col. 10, lines 34 and 35.).

Claim 3 is rejected the same as claim 11. Thus, argument similar to that presented above for claim 11 is equally applicable to claim 3.

Regarding claim 4, Ueta teaches the method of processing image data according to claim 1 wherein said correction coefficients (fig. 3,num. 79 is a switch that selects a coefficient from fig. 3,num. 49: CONT. COEF. INPUT UNIT.) include intensity correction coefficients (Fig. 3,num. 49: CONT. COEF. INPUT UNIT contains coefficients for contrast or sharpness that is based on a "shading correction" in col. 3, lines 35 and 36. Thus the contrast coefficients contain a shading value or intensity.).

Claims 5,18 and 19 are rejected the same as claim 4. Thus, argument similar to that presented above for claim 4 is equally applicable to claims 5,18 and 19.

Regarding claim 7, Ueta teaches the method of processing image data according to claim 6 wherein said user input values (Fig. 3,num. 48: COMP COEF. INPUT UNIT obtains a user input coefficient in col. 3, lines 65-67.) include an intensity notch signal

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(Fig. 3,num. 48: COMP COEF. INPUT UNIT is a “multi-position switch” in col. 4, lines 1 and 2.).

Regarding claim 8, Ueta teaches the method of processing image data according to claim 6 wherein said user input values (Fig. 3,num. 48: COMP COEF. INPUT UNIT obtains a user input coefficient in col. 3, lines 65-67.) include an image type signal (Fig. 3, label “IMAGE SIGNAL”).

Regarding claim 9, Ueta teaches the method of processing image data according to claim 6 wherein said user input values (Fig. 3,num. 48: COMP COEF. INPUT UNIT obtains a user input coefficient in col. 3, lines 65-67.) include customize data (An image based upon “user indicat[ion]” or customization in col. 10, lines 34 and 35.).

Regarding claim 10, Ueta teaches the method of processing image according to claim 6 wherein said user input values (Fig. 3,num. 48: COMP COEF. INPUT UNIT obtains a user input coefficient in col. 3, lines 65-67.) include a background removal signal (Fig. 3,num. 49: CONT. COEF. INPUT UNIT receives an user input for correcting contrast or “suppressing contrast... noise” in the abstract.).

Regarding claim 12, Ueta teaches the method of processing image data according to claim 11 wherein said predetermined correction coefficients (fig. 3, num. 49: CONT. COEF. INPUT UNIT contains “a preset...coefficient” in col. 4, lines 2-4.) are previously stored in a table (Fig. 1,num. 55: ROM contains “parameters...[that] set the... coefficient...” in col. 10, lines 27-30. Thus, fig. 1,num. 55: ROM generates a preset coefficient based on parameters.).

Claim 16 is rejected the same as claim 2. Thus, argument similar to that presented above for claim 2 is equally applicable to claim 16.

Claims 21 and 22 are rejected the same as claim 7. Thus, argument similar to that presented above for claim 7 is equally applicable to claims 21 and 22.

Claim 23 is rejected the same as claim 9. Thus, argument similar to that presented above for claim 9 is equally applicable to claim 23.

Claim 24 is rejected the same as claim 10. Thus, argument similar to that presented above for claim 10 is equally applicable to claim 24.

Regarding claim 26, Ueta et al. teaches the system for processing image data according to claim 25 further comprises a storage unit (fig. 3,num. 81: CONT COEF. OUTPUT UNIT stores coefficients.) connected (via numerals 79,77,76,74,75 and 71-73) to said intensity correction unit (Fig. 1,num. 45.) for storing the predetermined correction coefficients in a table format (fig. 3, num. 49: CONT. COEF. INPUT UNIT contains "a preset...coefficient" in col. 4, lines 2-4 that are inputted to storage 81.).

Claim 29 has been addressed in claims 1 and 15 except for the limitation of a storage medium for storing computer readable instructions which are disclosed in Ueta et al. in col. 3, line 60: "programs stored in RAM").

Claim 30 is rejected the same as claim 2. Thus, argument similar to that presented above for claim 2 is equally applicable to claim 30.

Claim 31 is rejected the same as claim 3. Thus, argument similar to that presented above for claim 3 is equally applicable to claim 31.

Claims 32 and 33 are rejected the same as claim 4. Thus, argument similar to that presented above for claim 4 is equally applicable to claim 32 and 33.

Claim 34 is rejected the same as claim 7. Thus, argument similar to that presented above for claim 7 is equally applicable to claim 34.

Claim 35 is rejected the same as claim 8. Thus, argument similar to that presented above for claim 8 is equally applicable to claim 35.

Claim 36 is rejected the same as claim 9. Thus, argument similar to that presented above for claim 9 is equally applicable to claim 36.

Claim 37 are rejected the same as claim 10. Thus, argument similar to that presented above for claim 10 is equally applicable to claim 37.

Claim 39 is rejected the same as claim 12. Thus, argument similar to that presented above for claim 12 is equally applicable to claim 39.

Claims 42-44 are rejected the same as claims 12 and 25. Thus, argument similar to that presented above for claims 12 and 25 are equally applicable to claims 42-44.

8. Claims 13,27,40 and 45-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueta et al. (US Patent 5,748,800 A) in view of Goto (US Patent 5,748,801) as applied to claim 1, above, further in view of Kawamura et al. (US Patent 6,563,537 B1).

Regarding claim 45, Ueta et al. does not teach the limitation of an outline characteristic includes a right edge, a left edge, a horizontal edge and a vertical edge, but does suggest a scanning direction to obtain an edge as shown in fig. 2 and suggests other methods of obtaining an edge using "relative adjacent elements in a

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spatial arrangement...(col. 11, lines 3-5)." Thus, Ueta suggest a spatial arrangement can contain a direction between two elements.

Kawamura et al. teaches the spatial arrangement as suggested by Ueta et al. as shown in fig. 1, label PN2h that shows two horizontal edges with a space between and the remaining limitation of an outline characteristic (or "block pattern" in col. 7, line 29 as shown in fig. 1, labels PN1h,PN1v,PN0,PN2h and PN2v) that includes a vertical edge (fig. 1, labels PN1v and PN2v),a horizontal edge (fig. 1, PN1h,PN2h), right and left edges (correspond to fig. 1, labels PN1h and PN2h which are horizontal edges that contain an "upper left pixel" in col. 8, lines 41 and col. 9, line 1 or "upper right" in col. 9, line 2 which are interpreted as upper left edge pixel or upper right edge pixel since the upper left pixel or the upper right pixel corresponds to a portion of said horizontal edge.).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Ueta et al.'s teaching of a scanning direction and relative adjacent elements with Kawamura et al.'s teaching of determining an edge with direction, because Kawamura et al.'s teaching "properly interpolate[es] image signals having various patterns (Kawamura et al., col. 2, lines 65-67)."

Claims 13,27,40, 46 and 47 are rejected the same as claim 45. Thus, argument similar to that presented above for claim 45 is equally applicable to claims 13,27,40,46 and 47.

Conclusion

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9. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Rosario whose telephone number is (571) 272-7397. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dennis Rosario/
Examiner, Art Unit 2624

/Matthew C Bella/
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